

## PureTemp® Thermal Energy Storage Materials

PureTemp thermal energy storage materials offer new levels of performance in storing or releasing large quantities of thermal energy at any given temperature. Our proprietary formulations and patented manufacturing processes yield superior quality biobased phase change materials at cost effective prices.

Some key properties:

- Thermal energy storage capacities which average 200 J/g
- Over 200 unique, engineered phase change transition temperatures between -40 °C and 151 °C
- Consistent, repeatable performance over thousands of thermal (melt/solidify) cycles
- 100% renewable and readily biodegradable produced from agricultural sources, not petroleum

## PureTemp 151 DSC Analysis Appearance Clear liquid, waxy solid DSC Q2000 V24.8 Build 120, 1°C/min 0 151 °C Melting point -0.5 Heat storage capacity 217 J/g -1 Thermal conductivity (liquid) 0.15 W/m°C 1.5 🕲 How (W) -2 0.25 W/m°C Thermal conductivity (solid) -2.5 Density (liquid) 1.36 g/ml Heat -3 Density (solid) 1.49 g/ml -3.5 Specific heat (liquid) 2.17 J/g°C -4 -4.5 ...... 2.06 J/g°C Specific heat (solid) 95 105 115 125 135 145 155 75 85 165 175 Temperature (°C) Typical physical properties are listed in the table above.

## PureTemp 151 Technical Information

**Entropy Solutions, LLC.** 

4232 Park Glen Road, Minneapolis, MN 55416 Tel: +1-952-941-0306 Inquiry: <u>www.puretemp.com/contact</u> Website: <u>www.puretemp.com</u> © Entropy Solutions, LLC. All Rights Reserved

IMPORTANT NOTE: The preceding data is based on tests and experience which Entropy Solutions believes reliable, and is supplied for informational purposes only. Entropy Solutions expressly disclaims any liability whatsoever for damage or injury which results from the use of the preceding data and nothing contained therein shall constitute a guarantee, warranty, or representation (including freedom from patent liability) by Entropy Solutions with respect to the data, the product described, or its fitness for use for any specific purpose, even if that purpose is known to Entropy Solutions. Individual requirements may vary and each purchaser is urged to perform their own tests, experiments, and investigations in the use of this product. For detailed safety and handling information regarding these products, please refer to the respective PureTemp Safety Data Sheet.